2014

ROAM 60/50
RAIL 50

Service Manual

SRAM LLC WARRANTY

EXTENT OF LIMITED WARRANTY
Except as otherwise set forth herein, SRAM warrants its products to be free from defects in materials or workmanship for a period of two years after original purchase. This warranty only applies to the original owner and is not transferable. Claims under this warranty must be made through the retailer where the bicycle or the SRAM component was purchased. Original proof of purchase is required. **Except as described herein, SRAM makes no other warranties, guaranties, or representations of any type (express or implied), and all warranties (including any implied warranties of reasonable care, merchantibility, or fitness for a particular purpose) are hereby disclaimed.**

LOCAL LAW
This warranty statement gives the customer specific legal rights. The customer may also have other rights which vary from state to state (USA), from province to province (Canada), and from country to country elsewhere in the world.

To the extent that this warranty statement is inconsistent with the local law, this warranty shall be deemed modified to be consistent with such law, under such local law, certain disclaimers and limitations of this warranty statement may apply to the customer. For example, some states in the United States of America, as well as some governments outside of the United States (including provinces in Canada) may:

a. Preclude the disclaimers and limitations of this warranty statement from limiting the statutory rights of the consumer (e.g. United Kingdom).

b. Otherwise restrict the ability of a manufacturer to enforce such disclaimers or limitations.

For Australian customers:
This SRAM limited warranty is provided in Australia by SRAM LLC, 1333 North Kingsbury, 4th floor, Chicago, Illinois, 60642, USA. To make a warranty claim please contact the retailer from whom you purchased this SRAM product. Alternatively, you may make a claim by contacting SRAM Australia, 6 Marco Court, Rowville 3178, Australia. For valid claims SRAM will, at its option, either repair or replace your SRAM product. Any expenses incurred in making the warranty claim are your responsibility. The benefits given by this warranty are additional to other rights and remedies that you may have under laws relating to our products. Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

LIMITATIONS OF LIABILITY
To the extent allowed by local law, except for the obligations specifically set forth in this warranty statement, in no event shall SRAM or its third party suppliers be liable for direct, indirect, special, incidental, or consequential damages.

LIMITATIONS OF WARRANTY
This warranty does not apply to products that have been incorrectly installed and/or adjusted according to the respective SRAM user manual. The SRAM user manuals can be found online at sram.com, rockshox.com, avidbike.com, truvativ.com, or zipp.com.

This warranty does not apply to damage to the product caused by a crash, impact, abuse of the product, non-compliance with manufacturers specifications of usage or any other circumstances in which the product has been subjected to forces or loads beyond its design.

This warranty does not apply when the product has been modified, including, but not limited to any attempt to open or repair any electronic and electronic related components, including the motor, controller, battery packs, wiring harnesses, switches, and chargers.

This warranty does not apply when the serial number or production code has been deliberately altered, defaced or removed.

This warranty does not apply to normal wear and tear. Wear and tear parts are subject to damage as a result of normal use, failure to service according to SRAM recommendations and/or riding or installation in conditions or applications other than recommended.

Wear and tear parts are identified as:

- Dust seals
- Bushings
- Air sealing o-rings
- Glide rings
- Rubber moving parts
- Foam rings
- Rear shock mounting hardware and main seals
- Upper tubes (stanchions)
- Stripped threads/bolts (aluminium, titanium, magnesium or steel)
- Brake sleeves
- Brake pads
- Chains
- Sprockets
- Cassettes
- Shifter and brake cables (inner and outer)
- Handlebar grips
- Shifter grips
- Jockey wheels
- Disc brake rotors
- Wheel braking surfaces
- Bottomout pads
- Bearings
- Bearing races
- Pawls
- Transmission gears
- Spokes
- Free hubs
- Aero bar pads
- Corrosion
- Tools
- Motors
- Batteries

Notwithstanding anything else set forth herein, this warranty is limited to one year for all electronic and electronic related components including motors, controllers, battery packs, wiring harnesses, switches, and chargers. The battery pack and charger warranty does not include damage from power surges, use of improper charger, improper maintenance, or such other misuse.

This warranty shall not cover damages caused by the use of parts of different manufacturers.

This warranty shall not cover damages caused by the use of parts that are not compatible, suitable and/or authorised by SRAM for use with SRAM components.

This warranty shall not cover damages resulting from commercial (rental) use.

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SAFETY FIRST!

We care about YOU. Please, always wear your safety glasses and protective gloves when servicing SRAM products.
Protect yourself! Wear your safety gear!

ROAM 60 & RAIL 50 Front Wheel Service

We recommend that you have your SRAM wheels serviced by a qualified bicycle mechanic. Servicing SRAM products requires knowledge of bicycle components as well as the special parts and tools for service.

For exploded diagram and part number information, please refer to the Spare Parts Catalog available on our web site at www.sram.com.

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Parts and Tools

- Nitrile gloves
- Apron
- Clean, lint-free rags
- Isopropyl alcohol
- Multipurpose bicycle grease and brush
- Bench vise
- (2) 5 mm hex wrenches
- (2) 22 mm open end wrenches
  or
  (2) Adjustable wrenches
- Torque wrench
- Rubber mallet

DT Swiss Toolkit HWTXXX00NTK24S

- FR/440 Front Hub Tools
- Small Stepped Tool

- Fabric Strap tool

SAFETY INSTRUCTIONS

Always wear nitrile gloves when working with bicycle grease.

ROAM 60 & RAIL 50 End Cap Replacement

1 **20 mm or 15 mm thru axle end caps**: use 2x 22 mm open end wrenches or adjustable wrenches.

Quick release (QR) end caps: use 2x 5 mm hex wrenches.

Hold one wrench stationary and turn the other wrench counterclockwise. One end cap will unthread from the hub and the other will remain on the axle.

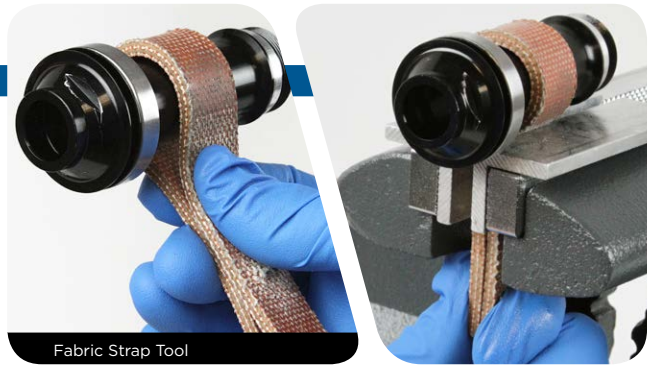
2 Insert the Small Stepped Tool into the open end of the axle.

3 Use a soft face mallet to tap out the axle from the hub.

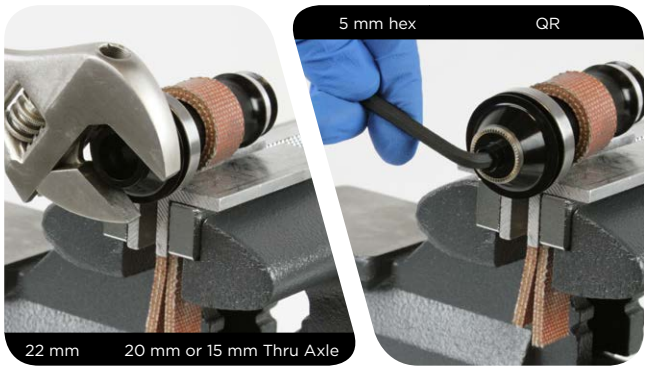
4 Wrap the Fabric Strap Tool tightly around the axle. Pull down firmly on the strap while clamping the strap in the vise.

NOTICE

Only use the Fabric Strap Tool to secure the axle in the vise. Do not clamp the axle directly in the vise.



5 Remove the end cap. If the axle rotates in the strap tool, remove it from the vise and pull the strap tighter. Make sure the bearing does not come off of the axle.



6 Lightly grease the bearing bores.

7 Install the axle into the hub and bearing.

8 Insert one of the FR/440 Front Hub Tools into the hub against the face of the installed bearing.

FR/440 Front Hub Tool

9 Place the FR/440 Front Hub Tool and wheel onto a bench. Install the other bearing onto the axle with the red seal facing away from the hub.

10 Insert the Small Stepped Tool into the axle and bearing. Install the other FR/440 Front Hub Tool onto the Small Stepped Tool and against the bearing face.

Small Stepped Tool

FR/440 Front Hub Tool

11 Strike the FR/440 Front Hub Tool with a soft face mallet until the bearing is firmly seated into the bearing pocket.

12 Check the axle for play by pushing and pulling it in the hub. If any play is detected, repeat steps 8-11.

13 Lightly grease the face of each bearing.

14 Thread the new end caps onto the axle. Tighten the end caps to 15 N•m (133 in-lb).

ROAM 60 & RAIL 50 Front Hub Bearing Replacement

1 **20 mm or 15 mm thru axle end caps**: use 2x 22 mm open end wrenches or adjustable wrenches.

Quick release (QR) end caps: use 2x 5 mm hex wrenches.

Hold one wrench stationary and turn the other wrench counterclockwise. One end cap will unthread from the hub and the other will remain on the axle.

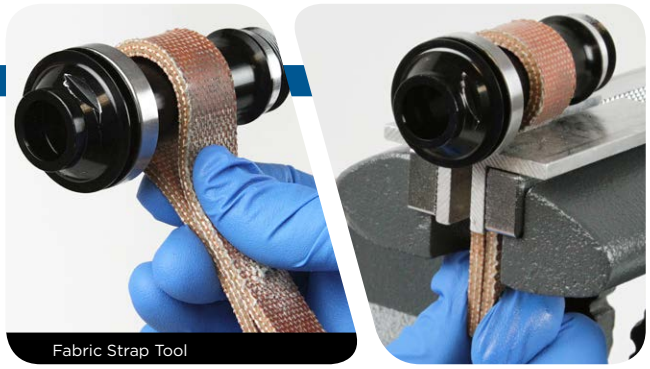
2 Insert the Small Stepped Tool into the open end of the axle.

3 Use a soft face mallet to tap the axle from the hub.

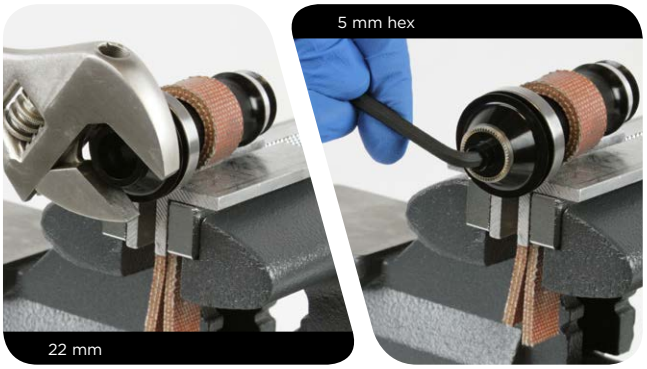
4 Wrap the Fabric Strap Tool tightly around the axle. Pull down firmly on the strap while clamping the strap in the vise.

NOTICE

Only use the Fabric Strap Tool to secure the axle in the vise. Do not clamp the axle directly in the vise.



5 Remove the end cap. If the axle rotates in the strap tool, remove it from the vise and pull the strap tighter.

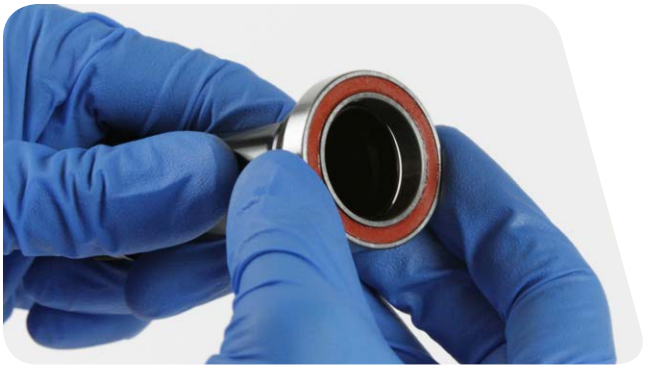


6 Remove the bearing from the axle.

7 Insert one end of the axle into the hub and into the installed bearing. Press the axle in as far as possible until it comes out of the bearing.

8 Insert the Small Stepped Tool into the axle. Strike the axle with a soft face mallet to remove the bearing from the hub.

9 Remove the bearing from the axle and discard. Install a new bearing onto the axle with the red seal facing away from the axle.



10 Clean the hub using isopropyl alcohol and a rag.

11 Lightly grease the bearing bores.

12 Insert the axle and bearing into the disc brake side of the hub. Install one of the FR/440 Front Hub Tools over the axle end and against the bearing.

13 Place the FR/440 Front Hub Tool and wheel onto a bench.

14 Install the other FR/440 Front Hub Tool over the axle and into the hub. Strike the tool with a soft face mallet until the bearing is firmly seated into the bearing pocket

15 Remove the upper LFR/440 Front Hub Tool from the axle. Install a new bearing onto the axle with the red seal facing away from the hub.

16 Insert the Small Stepped Tool into the end of the axle. Install the other FR/440 Front Hub Tool on top of the Small Stepped Tool.

17 Strike the FR/440 Front Hub Tool with a soft face mallet until the bearing is firmly seated into the bearing pocket.

18 Check the axle for play by pushing and pulling it in the hub. If any play is detected, repeat steps 16 and 17.

19 Lightly grease the face of each bearing.

20 Thread the new end caps onto the axle. Tighten the end caps to 15 N•m (133 in-lb).

ROAM 50 Front Wheel Service

We recommend that you have your SRAM wheels serviced by a qualified bicycle mechanic. Servicing SRAM products requires knowledge of bicycle components as well as the special parts and tools used for service.

For exploded diagram and part number information, please refer to the Spare Parts Catalog available on our web site at www.sram.com.

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Parts and Tools

- Nitrile gloves
- Apron
- Clean, lint-free rags
- Isopropyl alcohol
- Multipurpose bicycle grease and brush
- Bench vise
- Park Tool AV-4 axle vise
- Torque wrench
- Rubber mallet

DT Swiss Toolkit HWTXXX00NTK24S

- Large Diameter Hub Tools

- Long Stepped Tool

SAFETY INSTRUCTIONS

Always wear nitrile gloves when working with bicycle grease.

ROAM 50 End Cap Replacement

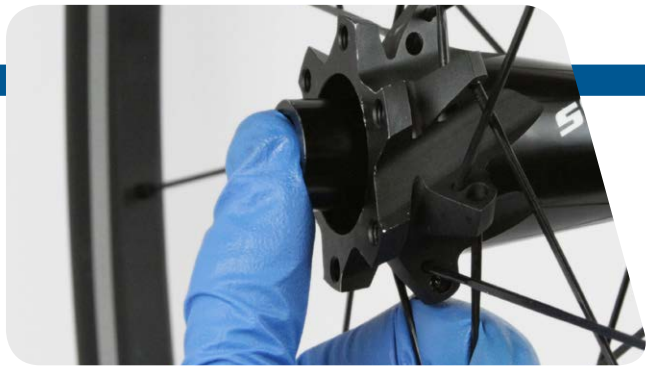
1 Pull the end caps from the hub by hand. A Park Tool AV-4 Axle Vise can be used if the end caps are difficult to remove.

Park Tool AV-4

2 Press the new end caps onto the hub by hand.

NOTICE

The tall end cap is installed on the disc brake side of the hub.



ROAM 50 Front Hub Bearing Replacement

1 Pull the end caps from the hub by hand. A Park Tool AV-4 Axle Vise can be used if the end caps are difficult to remove.

Park Tool AV-4

2 Install the Long Stepped Tool into one side of the axle.

Long Stepped Tool

3 Use a soft face mallet to tap out the axle from the hub.

4 Remove the bearing from the axle and discard.

5 Insert one end of the axle through the hub and into the installed bearing.

6 Install the Long Stepped Tool into the axle. Strike the axle with a soft face mallet to remove the bearing from the hub.

Long Stepped Tool

7 Remove the bearing from the axle and discard.

8 Clean the inside of the hub using isopropyl alcohol and a rag.

9 Lightly grease the bearing bores.

10 Install a new bearing onto the long end of the axle with the red seal facing away from the axle.

11 Install the axle into the hub through the disc brake side of the hub.

12 Install one of the Large Diameter Hub Tools into the non-brake side of the hub. This will help maintain the alignment of the axle.

Large Diameter Hub Tool

13 Place the Large Diameter Hub Tool and wheel onto a bench with the disc brake side facing up.

14 Install the other Large Diameter Hub Tool over the axle end and into the hub. Strike the tool with a soft face mallet until the bearing is firmly seated into the bearing pocket.

Large Diameter Hub Tool

15 Turn the wheel over so that the Large Diameter Hub Tool and installed bearing are on the work bench. Install a new bearing onto the axle.

16 Install the other Large Diameter Hub Tool over the axle and into the hub. Strike the tool with a soft face mallet until the bearing is firmly seated into the bearing pocket. Periodically check bearing alignment in the hub.

Large Diameter Hub Tool

17 Check the axle for play by pushing and pulling it in the hub. If any play is detected, repeat steps **12-16**.

18 Apply a light layer of grease to each bearing face. Use a rag or paper towel to remove any grease from the ends of the axle.

19 Press the end caps onto the hub by hand.

NOTICE

The tall end cap is installed on the disc brake side of the hub.

ROAM 60/50 & RAIL 50 Rear Wheel Service

We recommend that you have your SRAM wheels serviced by a qualified bicycle mechanic. Servicing SRAM products requires knowledge of bicycle components as well as the special parts and tools used for service.

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Parts and Tools

- Nitrile gloves
- Apron
- Clean, lint-free rags
- Isopropyl alcohol
- Multipurpose bicycle grease and brush
- Bench vise
- Torque wrench
- Soft face mallet
- Metal Pick

DT Swiss Toolkit HWTXXX00NTK24S

- Short Installation Cylinders
- Long Stepped Tool

- Long Installation Tool

- DT Special Grease

- Ring Nut Installation Tool

- Seal Installation Tool

SAFETY INSTRUCTIONS

Always wear nitrile gloves when working with bicycle grease.

ROAM 60/50 & RAIL 50 Rear Hub Bearing Replacement

1 Pull the end caps from the hub by hand. A Park Tool AV-4 Axle Vise can be used if it the end caps are difficult to remove.

NOTICE

Removal of 9/10 speed driver body is the same as for XD driver body.

Park Tool AV-4

2 Pull the driver body and spring from the hub by hand. Remove the two star ratchets.

3 Use a pick to remove the internal spring from the hub.

4 Remove the aluminum spacer from the axle.

5 Strike the axle with a soft face mallet to remove the disc brake side bearing from the hub.

6 Remove the bearing from the axle and discard.

7 To remove the ring nut, first install the Ring Nut Installation Tool into a vise.

Ring Nut Installation Tool

8 Install the drive side of the hub onto the Ring Nut Installation Tool. Press down firmly and rotate the wheel to make sure that the teeth of the tool engage with the ring nut.

9 Press down firmly and rotate the wheel counter-clockwise to remove the ring nut from the hub. The rotor seal will also be removed, and may fall over the ring nut tool onto the vise. Remove the ring nut from the tool. Clean the ring nut and inspect for any damage. Replace the ring nut if it is damaged.

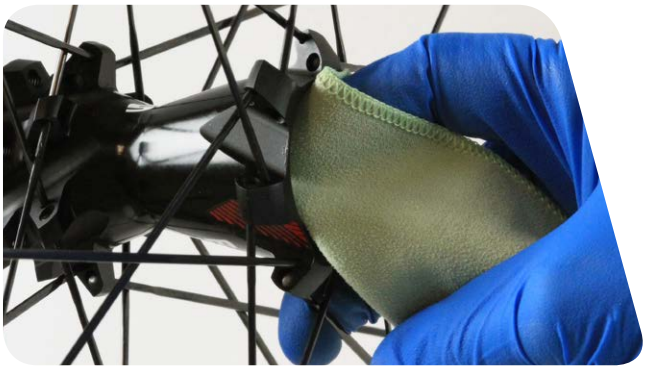
10 Use a pick to remove the shim ring from the hub.

11 Insert the short end of the axle through the disc brake side of the hub and into the drive side bearing.

12 Strike the axle with a soft face mallet to remove the bearing from the hub.

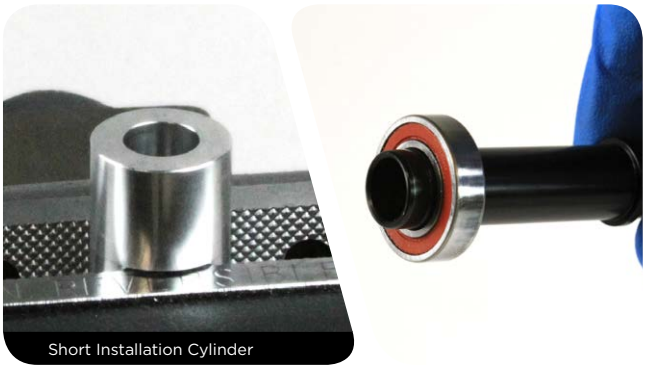
13 Remove the bearing from the axle and discard.

14 Clean the inside of the hub using isopropyl alcohol and a rag.



15 Lightly grease the bearing bores.

16 Install one of the Short Installation Cylinders into a vise. Install a new bearing onto the long end of the axle with the red seal facing away from the axle.



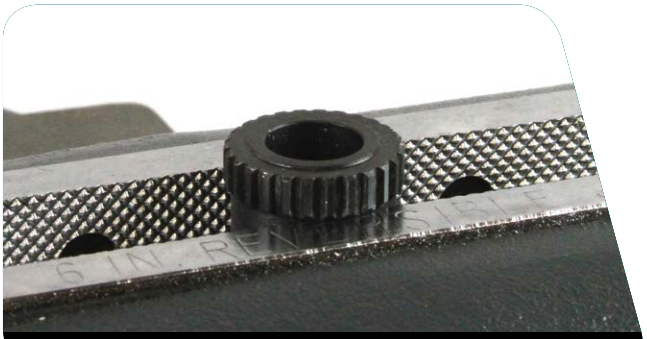
17 Install the long end of the axle into the Short Installation Cylinder. Firmly press down on the axle to seat the bearing onto the axle.

18 Install the drive side of the hub onto the axle and bearing.

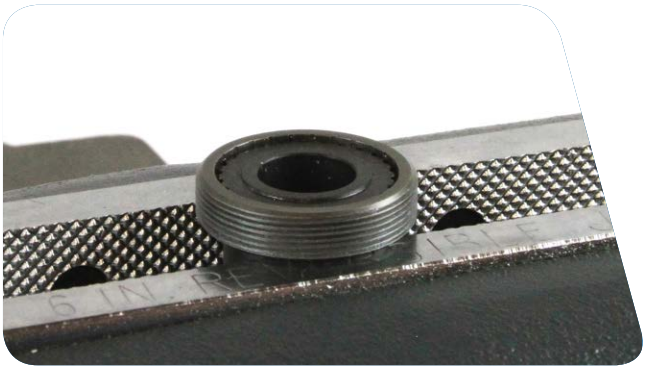
19 Install the other Short Installation Cylinder over the axle and into the hub. Strike the Short Installation Cylinder with a soft face mallet until the bearing is firmly seated into the bearing pocket.

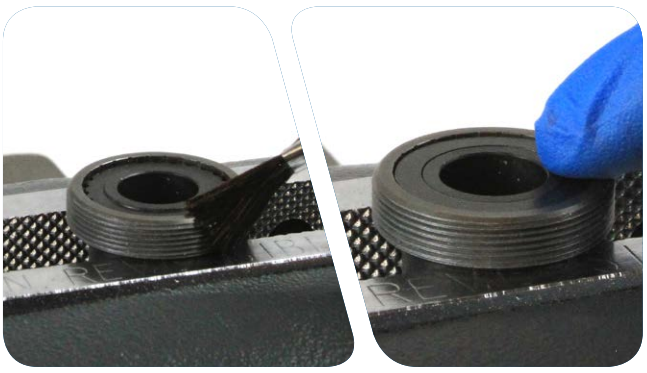
Short Installation Cylinder

20 To install the ring nut, first install the Ring Nut Installation Tool into a vise so that the teeth are level with the top of the vise.


Ring Nut Installation Tool

21 Place the ring nut onto the Ring Nut Installation Tool with the recessed edge facing up. Apply a light layer of grease to the threads of the ring nut. Place the the shim ring on top of the ring nut.



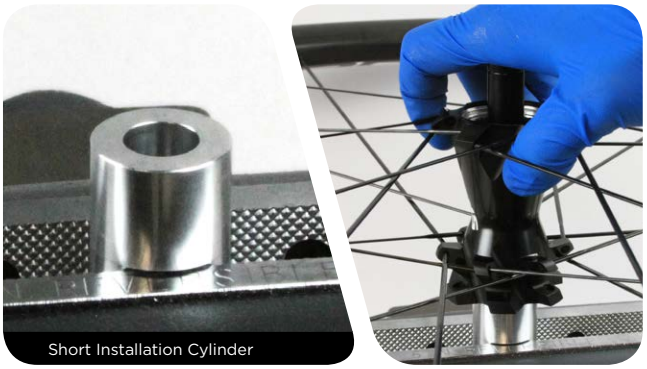


22 Insert the axle into the Ring Nut Installation Tool. Carefully turn the wheel clockwise to thread the ring nut into the drive side of the hub. Do not overtighten the ring nut.

NOTICE

After the ring nut has engaged the threads inside the hub, you will need to raise the Ring Nut Installation Tool in the vise to prevent the vise from scratching the hub shell.

23 Install one of the Short Installation Cylinders into a vise. Install the disc brake end of the axle into the Short Installation Cylinder.


Short Installation Cylinder

24 Place the rotor seal onto the Seal Installation Tool with the rubber seal facing the tool. Place the tool onto the axle with the rotor seal facing toward the hub.

NOTICE

If the rotor seal shows any signs of damage, it must be replaced with a new rotor seal.

Seal Installation Tool

25 Place a Long Installation Tool onto the axle. Strike the Long Installation Tool with a soft face mallet until the rotor seal is seated in the hub shell.

Long Installation Tool

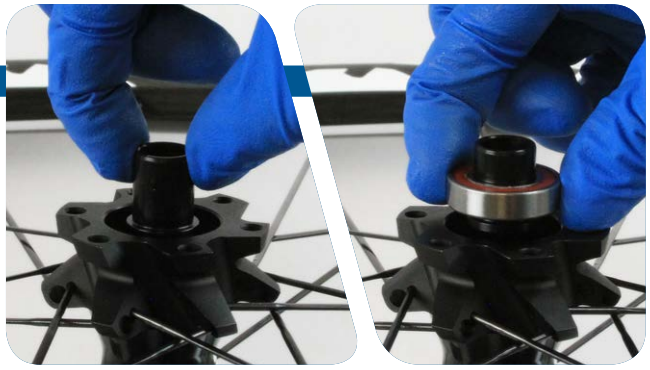
26 Install the Ring Nut Installation Tool in a vise. Install the drive side of the axle into the Ring Nut Installation tool and press down firmly to make sure that the teeth of the tool engage the teeth of the ring nut.

Ring Nut Installation Tool

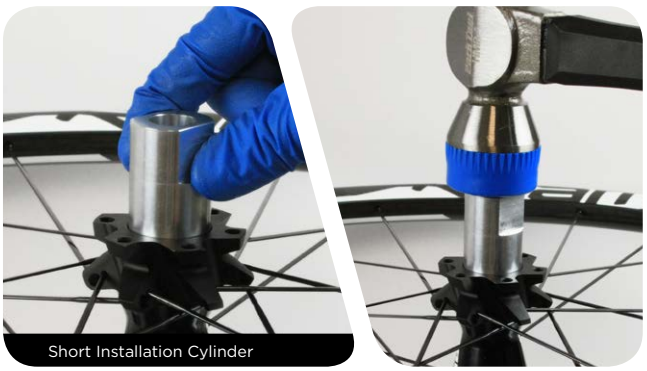
27 Pull the axle out of the hub about 2 cm. Install a new bearing onto the axle with the red seal facing away from the hub.

NOTICE

You may need to remove the axle from the hub, install the bearing onto the axle, and then reinstall the axle into the hub and Short Installation Cylinder.



28 Install a Short Installation Cylinder onto the axle and bearing. Strike the Short Installation Cylinder with a soft face mallet until the bearing is firmly seated into the bearing pocket.


Short Installation Cylinder

29 Check the axle for play by pushing and pulling it in the hub. If any play is detected, repeat step 28.

30 Apply a light layer of grease to the face of the non-drive side bearing. Use a rag or paper towel to remove any grease from the end of the axle.

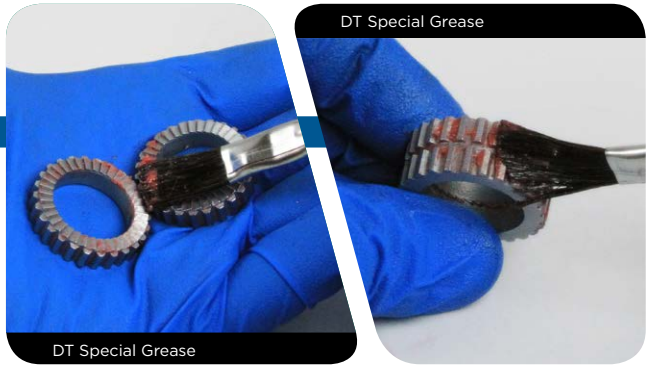
31 Apply a very thin layer of **DT Special Grease** to the teeth of the ring nut.

DT Special Grease

32 Install the spacer onto the axle as far as possible.

33 Install the spring onto the axle and over the spacer. The wide opening of the spring is toward the hub.

34 Clean both star ratchets and inpect for damage. If either star ratchet is damaged, the damaged part must be replaced. Apply a very thin layer of **DT Special Grease** to all surfaces of both star ratchets.



NOTICE

Only use **DT Special Grease** on the star ratchets. Using any other grease, or applying too much **DT Special Grease** can prevent the ratchets from engaging. If the ratchets do not engage properly, clean them and reapply a thin layer of **DT Special Grease**.

35 Install the two star ratchets onto the axle.

36 Clean the driver body and install the spring into the driver body. The wide opening of the spring is against the driver body.

NOTICE

Installation of the 9/10 speed driver body is the same as for XD driver body.

37 Install the driver body onto the axle. Firmly press the driver body against the hub to make sure the teeth of the driver body are engaged with the teeth of the star ratchets and ring nut.

38 Apply a thin layer of grease to the driver body bearing. Use a rag or paper towel to remove any grease from the ends of the axle.

Press the end caps onto the hub by hand.

NOTICE

Only use the end cap labeled "XD Compatible" when installing an XD driver body.

Tubeless Rim Tape

We recommend that you have your SRAM wheels serviced by a qualified bicycle mechanic. Servicing SRAM products requires knowledge of bicycle components as well as the special parts and tools used for service.

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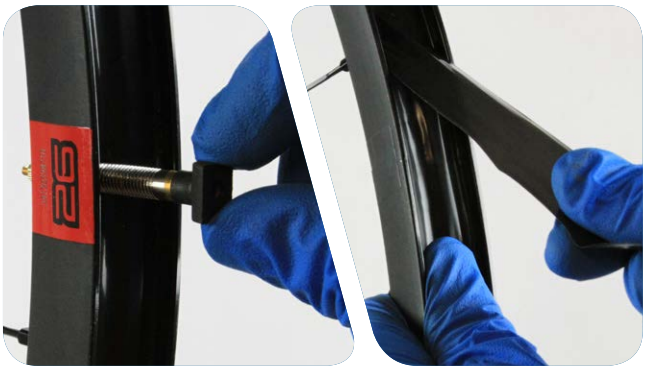
Parts and Tools

- ROAM 50/60 = 26 mm width rim tape
- RAIL 50 = 28 mm width rim tape
- Nitrile gloves
- Apron
- Clean, lint-free rags
- Wheel truing stand
- Isopropyl alcohol
- Small flashlight
- Small knife
- Scissors

Tubeless Rim Tape Installation

1 Install the wheel into a truing stand. Remove any existing rim strips or rim tape from the rim. Remove the valve stem. Thoroughly clean the rim with isopropyl alcohol and a clean rag. Make sure that the rim is dry and free of alcohol. Spinning the wheel rapidly in the truing stand can help remove alcohol from the spoke holes.

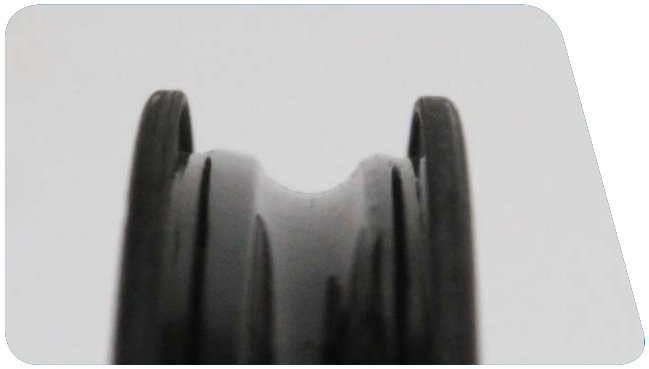


2 Apply the beginning section of tape between the two spoke holes that are 180 degrees opposite from the valve stem hole. Press 4-5 inches (10-13 cm) of tape into the channel of the tire bed.

3 Apply tension to the tape by rotating the wheel away from you while rapidly "shaking" the tape from side to side about 2-3 inches (5-8 cm). This will seat the tape into the channel and keep it centered in the rim.

NOTICE

The tubless tape must be seated into the channel to create an adequate seal. If the tape is not seated into the channel, the tire may leak air.



4 Continue the process of rotating the wheel and shaking the tape side to side while keeping an even tension on the tape roll until the tape meets the beginning edge of tape from step 2. Overlap the beginning edge with another 12 inches (31 cm) of tape to the wheel.

5 Cut the tape. Use your fingers or a tire lever to press the leading edge of tape against the rim. This will help prevent sealant from getting under the tape.

Valve Stem Installation

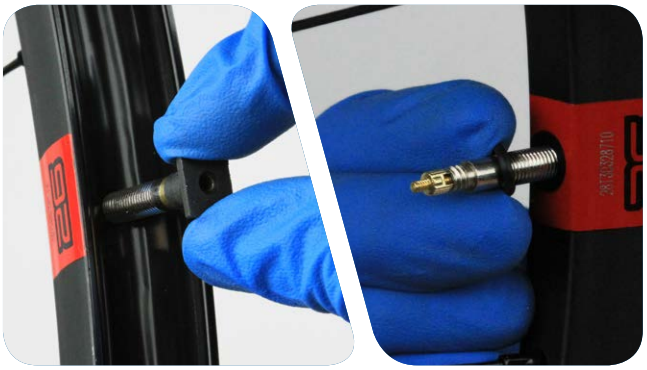
1 Shine a flashlight through the rim to illuminate the valve stem hole. Use a small knife to cut the tape from the valve stem hole.

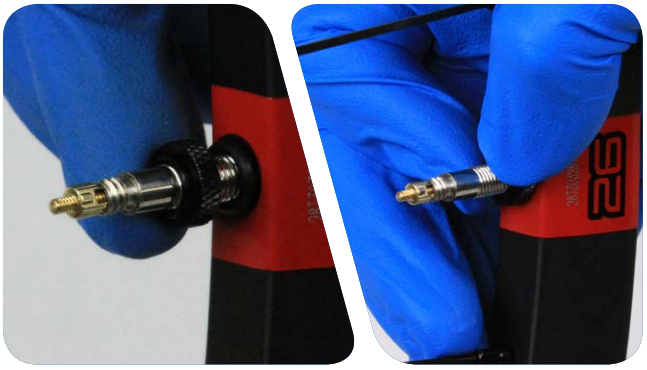
2 Remove the nut and o-ring from the valve stem. Install the valve stem into rim.

Install o-ring onto the valve stem.

Install nut onto valve stem and o-ring, with the recessed area toward rim.

Press the valve stem into the channel and hand tighten the nut.





Replacement Parts

For part numbers, please refer to the SRAM Wheels Spare Parts List in the Service section of www.sram.com.

		Spoke Count	Lacing Pattern	Spoke Length 26	Spoke Length 27.5	Spoke Length 29	Final Spoke Tension
ROAM 60	Front Wheel	24	2 Cross	268 mm	280 mm	298 mm	110 kgf ± 10 kgf (1079 N ± 98 N) on Brake side
	Rear Wheel	24	2 Cross	268 mm	280 mm	298 mm	110 kgf ± 10 kgf (1079 N ± 98 N) on Drive side
ROAM 50	Front Wheel	24	2 Cross	270 mm	281 mm	300 mm	110 kgf ± 10 kgf (1079 N ± 98 N) on Brake side
	Rear Wheel	24	2 Cross	270 mm	281 mm	300 mm	110 kgf ± 10 kgf (1079 N ± 98 N) on Drive side
RAIL 50	Front Wheel	24	2 Cross	270 mm	281 mm	300 mm	110 kgf ± 10 kgf (1079 N ± 98 N) on Brake side
	Rear Wheel	24	2 Cross	270 mm	281 mm	300 mm	110 kgf ± 10 kgf (1079 N ± 98 N) on Drive side

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